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EXAMINER	
MENGISTU, AMARE	
ART UNIT	**PAPER NUMBER**
2673	5

DATE MAILED: 02/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/964,975	KEHLSTADT, FLORIAN MAX	
	Examiner	Art Unit	
	Amare Mengistu	2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/17/03*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 27-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-16 and 27-30* is/are rejected.

7)☒ Claim(s) *6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-10, 12-14 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims **1,13**, and **14** of U.S. Patent No. **10/124,892**. Although the conflicting claims are not identical, they are not patentably distinct from each other because the '892 patent disclose applicant's claimed invention except that the computer mouse and detecting said mouse. However; it would have been obvious to one skill in the art at the time of the invention was made to recognize that the hand detection circuit of '892 is obviously a capacitive type because the hand detection circuit is coupled to a capacitive antenna in order to detect the proximity of a user hand as the claim interpreted broadly.

Claim Objections

3. Claim 27 objected to because of the following informalities: claim 27, lines 8-9, "***said hand detect signal" should be "said hand detection signal".*** Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. Claim 27-30 recites the limitation "**said light emitter**" in claim 27, lines 8. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Hinckley et al** (2001/0011995) in view of **Taylor et al** (US 2003/0025679)

7. As to claim 16 is **Hinckley et al** clearly teaches a computer mouse comprising: a housing (figs.4-14); electronic circuit for detecting movement of said mouse and transmitting movement signals to a computer (page 5, col.1 [0072-0073]); a hand detection circuit for detecting the proximity of a user's hand to said housing and producing a hand detect signal (page 5, col.1 to col.2 [0076]), also teaches a light (LED)

in said mouse (page 5 [0077]; but **Hinckley et al** has failed to teach a response element, in one of said computer mouse and said computer, *for activating a light in said mouse in response to said hand detect ion signa*l. The patent of **Taylor et al** clearly states that it is well known for an input device (touch pad, key pad, cursor control and scroll bar) to active a light in said input device in response to a hand detection signal (see, Abstract; page 2 [0037]; [0039] page 3 [0045]).

8. Therefore; it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to incorporate the input device with a light activation system of Taylor **et al** into the hand detection mouse of Hinckley **et al,** because this will assure the user by visually notify that the hand has been detected.

9. Claims 1-3, 7-10,12-14, 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hinckley et al** (2001/0011995) in view of **Goff et al** (6,105,142) and **Inoue et al** (6,075,520).

10. As to claims 1-3,9-10,12-14,29-30 **Hinckley et al** clearly teaches an input device/optical mouse **Hinckley et al** comprising: a housing (figs. 4A-4C); electronic circuitry for detecting user inputs and transmitting signals corresponding to said inputs to an electronic devices (page 7, col.1 [0091]); detecting movement of said optical mouse using optical detection and transmitting said movement signals to an electronic device external to said optical mouse (page 6, col.1, [0083]); a hand detection circuit for detecting the proximity of a user's hand to said housing and producing a hand detect signals (page 5, col.1 [0072], col.1 [0076] to col.2); simultaneously charging and

discharging of capacitance coupled to electrodes, and producing a hand detect signal (page 5, col.2 [0077]). **Hinckley et al** has failed to teach a sleep mode circuit. **Goff et al** is cited to teach that it is well known to have a sleep mode circuit being responsive to a hand detection signal to awaken an electronic circuit from reduced power operation (see, col.11, lines 41-52, col.12, lines 26-44).

Therefore it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to combine the teaching of a sleep mode circuit as taught by **Goff et al** into the input device of **Hinckley et al,** because this is a power management system which will allow the user for managing power consumption in a computer system.

11. As to claims 7 and 8, wherein said hand detection circuit includes electrodes covering more than 25 percent of the underside surface (see, fig.4A (172)) and can be directly contacted simultaneously by the user's hand (figs. 6A-6D (602)).

Hinckley et al as modified by **Goff et al** did not teach explicitly teach that the hand detection circuit is a capacitive detection circuit. However, **Inoue et al** is cited to teach that a capacitive hand detection circuit is well known (see, Abstract) including a first and a second electrodes for capacitive connection with a user hand (fig.1 (X1-Xn), Y1-Ym)); a first circuit coupled to said first electrode (fig.1 (13)); a second circuit coupled to said second electrode (fig.1 (13a)) for detecting for charging/discharging the capacitance (see, Abstract; col.4, lines 29-53).

Therefore, it would have been obvious to one skill in the art the time of the invention was made to incorporate the capacitive detection method of Inoue et al into

the input device of **Hinckley et al,** since this is an alternative way of detecting hand in order to provide a small current detector circuit that is less affected by noise.

12. Claims 4,5 11,15, rejected under 35 U.S.C. 103(a) as being unpatentable over **Hinckley et al** (2001/0011995) in view of **Goff et al** (6,105,142) **Inoue et al (6,075,520)** and **Philipp** (6,452,514).

13. As to claims 4,5,11 and 15 is the same rejection as to claims 1-3,7-10,12-14,29-30 above, except that the an internal virtual ground is produced between said first and second electrodes and said hand detection circuit is mounted inside a top of said housing, such that a portion of said housing insulates said user's hand from said capacitive hand detection circuit. **Philipp** is cited to teach that it is well known for a hand detection circuit to have an internal virtual ground which is produced between said first and second electrodes (see, col.3, lines 58-62, col.4, lines 10-17) and said hand detection circuit is mounted inside a top of said housing, such that a portion of said housing insulates said user's hand from said capacitive (see, figs.1a (105), 1b, 2b (113)).

Therefore, it would have been obvious to one skill in the art at the time of the invention was made to have been motivated to combine the arrangement of a capacitor of **Philipp** into the hand detection device **Hinckley et al;** since this is an alternative way relocating the capacitor to provide protection from damage.

Allowable Subject Matter

14. Claims 27-30 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

15. The following is an examiner's statement of reasons for allowance: the above cited references has failed to teach the recited claim limitations "*a controller for Turing on and off said light emitter... wherein said controller further: filters ambient light frequencies, ...cycles said light emitter on and off...; and requires detection of a hand for a predetermined number of cycles before issuing said hand detect signals*".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

16. Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

17. The following is a statement of reasons for the indication of allowable subject matter: the above cited prior arts has failed to teach Applicant's claimed invention "*a comparator; a controller... a voltage divider... a detection capacitor... and a switching circuit selectively coupling said signal input of said comparator to high and low voltage supplies*".

Response to Arguments

18. Applicant's arguments with respect to claims 1-16,27-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amare Mengistu whose telephone number is (703) 305-4880. The examiner can normally be reached on M-F,T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9600.

Amare Mengistu
Primary Examiner
Art Unit 2673

A.M
February 20, 2004